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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :  
Kenji MUTA et al. : **Mail Stop: PCT**  
Serial No. 10/570,344 : Attorney Docket No. 2006-0277A  
Filed March 3, 2006 :

GAS FLUX MEASURING DEVICE  
[Corresponding to PCT/JP2004/014159  
Filed September 28, 2004]

### INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

THE COMMISSIONER IS AUTHORIZED  
TO CHARGE ANY DEFICIENCY IN THE  
FEES FOR THIS PAPER TO DEPOSIT  
ACCOUNT NO. 02-0876

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

- ☒ each U.S. Patent and U.S. Patent application publication;
- ☐ each reference previously cited in the international application PCT/\_\_\_\_\_; and/or
- ☐ each reference previously cited in prior parent application Serial No. \_\_\_\_\_.

1a. ☒ This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, or

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

**and thus no certification and/or fee is required.**

- 1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

- (1) ☐ the certification of paragraph 2 below is provided, **or**  
(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

- 1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

**the certification of paragraph 2 below is provided, and  
the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.**

2. It is hereby certified

- a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or  
b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.

4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
- a. ☒ a full or partial English language translation submitted herewith,
  - b. ☒ a foreign patent office search report (in the English language) submitted herewith,
  - c. ☒ the concise explanation contained in the specification of the present application at page 5,
  - d. ☒ the concise explanation set forth in the attached English language abstract,
  - e. ☐ the concise explanation set forth below or on a separate sheet attached to the reference:
5. ☒ A foreign patent office search report citing one or more of the references is enclosed.

Respectfully submitted,

Kenji MUTA et al.

By



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May 26, 2006

## INFORMATION DISCLOSURE STATEMENT

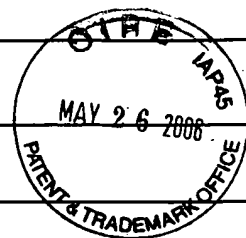
FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: May 26, 2006

ATTY DOCKET NO.  
2006-0277ASERIAL NO.  
10/570,344APPLICANT  
Kenji MUTA et al.FILING DATE  
March 3, 2006

GROUP



## U.S. PATENT DOCUMENTS

| *EXAMINER<br>INITIAL |    | DOCUMENT<br>NUMBER | DATE   | NAME     | CLASS | SUBCLASS | FILING DATE IF<br>APPROPRIATE |
|----------------------|----|--------------------|--------|----------|-------|----------|-------------------------------|
|                      | AA | 5,303,024          | 4/1994 | Thierman |       |          |                               |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT<br>NUMBER | DATE    | COUNTRY | CLASS | SUBCLASS | TRANSLATION<br>YES NO |
|--|----|--------------------|---------|---------|-------|----------|-----------------------|
|  | AB | 2001-74653         | 3/2001  | JP      |       |          | abstract              |
|  | AC | 10-153548          | 6/1998  | JP      |       |          | abstract              |
|  | AD | 8-261891           | 10/1996 | JP      |       |          | abstract              |
|  | AE | 8-261892           | 10/1996 | JP      |       |          | abstract              |
|  | AF | 2004-219379        | 8/2004  | JP      |       |          | abstract              |
|  | AG | 9-236542           | 9/1997  | JP      |       |          | abstract              |

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

|  |    |                                                                                                                                                                                                                                                                                                                                                    |
|--|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | AH | Yoshinari GOTO, "Characteristics of Turbulent Intensities and Simplified Methods for Estimating Temperature and Specific Humidity Fluxes in the Unstable Stratification", Journal of Japan Society of Hydrology & Water Resources, Vol. 13, No. 2, 2000, pgs. 114-123 (with partial English translation).                                          |
|  | AI | Volker Thiermann, "A Displaced-Beam Scintillometer for Line-Averaged Measurements of Surface Layer Turbulence", Tenth Symposium on Turbulence and Diffusion, September 19 - October 2, 1992, pgs. 224-247.                                                                                                                                         |
|  | AJ | O. Nakaya et al. "Analysis of Turbulence Characteristics for Assessment of CO <sub>2</sub> Flux in Birch Forests of the East Foot of Mt. Asama", Lecture at Joint Meeting of Four Academies related to Agricultural Environment Engineering, August 6-8, 2002 at the Faculty of Agriculture, Tokyo, University (with partial English translation). |
|  | AK | N. Kagawa et al., "Velocimetry Using Spatial Filtering of Scintillation of Laser Beam", Publication of Electronics, Information and Systems Society, Vol. 118-C, No. 12, December 1998, pgs. 1792-1797 (with partial English translation).                                                                                                         |
|  | AL | N. Moji, "Proposal on GHG (green house gas) Flux Measuring Method in Forests", Center for Global Environment Research, National Institute for Environmental Studies, Environment Agency of Japan, 2000, pgs. 3-80 (with partial English translation).                                                                                              |
|  | AM | Jun ASANUMA et al., "Turbulence Variance Characteristics Above a Flat Pine Forest and the Surface Flux Estimation with Variance Methods", Journal of Japan Society of Hydrology & Water Resources, Vol. 10, No. 6, 1997, pgs. 515-523 (with partial English translation).                                                                          |
|  | AN | O. Nakaya et al., "Introduction of CO <sub>2</sub> Flux Continuous Observations in Birch Forests of the East Foot of Mt. Asama", 2002 CGER Flux Research Meeting, November 14, 2002, pg. 58 (with partial English translation).                                                                                                                    |

EXAMINER

DATE CONSIDERED